# ATT-TP-76463
# Fiber optic FMT/FL2 Component Testing Process

**Abstract**

**Presented in this document are the AT&T process for sectionalizing a fiber optic passive component within a panel.**

**Audience:** The primary audience for this document are AT&T Communications Inc subsidiaries in the following disciplines: Local Field Organization (LFO-IN), Special Services (LFO-OUT), Maintenance Engineer, Outside Plant, Fundamental Network Planners, New Technology Introduction, Fiber to the Premises (FTTP), AT&T Laboratories and most importantly, anyone that may be exposed or required to work on or in close proximity to fiber optic systems. This document is to be used both within and outside AT&T LOCAL EXCHANGE companies and their Authorized Vendors.
**Effective Date:** October 15, 2004
**Date Issued:** Issue 1, October 15, 2004
**Expires On:** Reissue
**Related Documents:** See Reference Section
**Canceled/Superceded Doc:** No previous issues of this document.
**Issuing Dept:** AT&T Services, Outside Plant Standards, Network Planning & Engineering (Transport & Common Systems).
**Business Unit:** Network

**Documents Coordinator:** Steve Weinert – (817) 376-1822, E-Mail: sw0872@att.com

**Author:**

Steve Weinert – (817) 376-1822, E-Mail: sw0872@att.com

# Table of Contents

## 1. Copyright Page



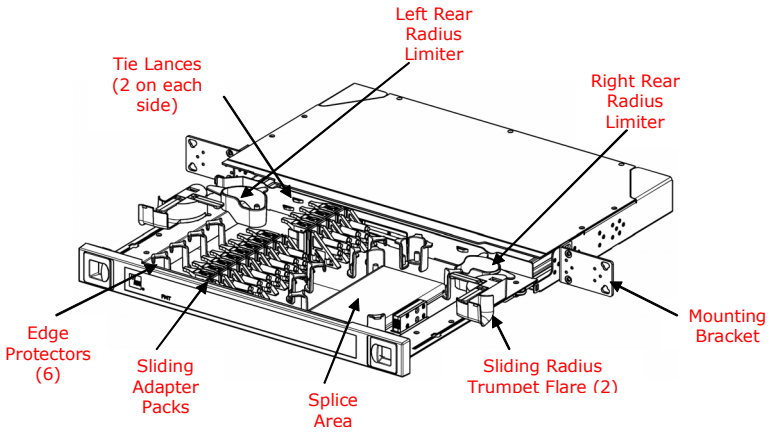
**Publisher:** Steve Weinert
Network Planning & Engineering
400 W. South Street
Rm 112
Arlington, Texas 76010

## 2. Reasons for Reissue

This section will be updated upon reissue.

## 3. Illustration of a FMT Panel

Illustration of the FMT Panels



## 4. Fiber Optic Emergency Service Restoration Process (FMT/FL2)

### 4A. Standard Fiber optic Trouble Handling

1. AT&T Plant Control Office [PCO] (Governing Test Center) forwards a Ticket on the Affected or Out-Of-Service Condition on WFA-DO to the nearest qualified field technician.

2. If a fiber trouble condition, the dispatched technician will hand-back their existing ticket and load this high priority fiber optic ticket to themselves.

3. Get to the customer/Interexchange Carrier (IXC) site as soon as possible.

4. Work through any security/access issues at the Customer/IXC's premises.

5. The PCO should have looped the Network Equipment on the customer's site back to the Central Office-validating performance and connectivity to this point. If the equipment has failed, proceed directly to the failed equipment.

6. The field technician will access circuit detail records and verify the circuit/span.

7. The tech will identify the circuit handoff point and circuit.

8. If service degraded, the technician will ask for permission to take down the circuit. If granted or the circuit is down "hard", the customer connection can then be removed from the demarcation point.

9. The optical test set will be set up with connectors cleaned on all test cords before attachment at the demarcation point.

10. Once access made, contact the PCO and have the loop removed. Test from test set to far-end test access by CO or PCO (test board).

11. Synchronize the circuit between both test points and test sets. Perform test routines and stress test patterns. If okay, remove test gear and reattach customer, followed by the ticket closure.

### 4B. FL2/FMT Equipment Test Sectionalization

1. If circuit in failure mode (no sync), PCO will latch up network equipment on customer premises toward the demarcation point.

2. The field technician will run straight away from the demarcation point with his test set to the network equipment on site. If it still fails, go to intermediate test point (riser panel). Test back to Network Equipment.

3. If the trouble isolates to the FMT/FL2 panel from beyond the panel's tail/stub end, test straight away between the two test access sites thru the panel. Further sectionalize if the signal does not return. Otherwise, close ticket.

4. Open the jumper from the interior FMT/FL2 connection in the panel back to the next connection point, test overall looking for any attenuation in excess of .3 dB.

5. Clean connector ends and re-measure the signal thru each connector and jumper.

### 4C. Intra-Panel Jumper Sectionalization

1. Once the trouble has been isolated to the jumper within the panel, measure the insertion loss in current state laid out thru the panel. If attenuation greater than .3 dB, straighten out one of the bends and retest. If any of the ends exceed .3 dB on any straightened verses curved around any radius limiter, identify jumper and replace with a new cleaned jumper. Annotate which curve and bend of which FMT/FL2 panel has the difficulty.

2. Retest circuit with Network Equipment. If drop meets overall parameters, reattach customer, notify PCO and customer. Drop loop and restore service.

3. Close ticket, remove jumper in question and disengage from that location.

4. Current defective jumper handling calls for the tech to cut the connectors of the jumper and send the products to Maintenance Engineering for further review.

### 4D. Maintenance Engineer & Staff

The Maintenance Engineer will gain receipt of the jumper and connectors in question. The removed materials will be made available for further testing on an expeditious basis. Forward all samples directly to:

**Steve Weinert, Associate Director-Network Planning & Engineering – Fiber optics**
**(817) 376-1822, 400 W. South Street, Rm 112, Arlington, Texas 76010.**

Annotate the readings found, the AT&T Ticket Number, the location of the problem within the panel and the exact location of the panel including the end users actual address.

## 5. References

GR-326-CORE, *Generic Requirements for SingleMode Connectors and Jumper Assemblies*, Issue 3, dated September 1999

GR-449-CORE, *Generic Requirements and Design Considerations for Fiber Distributing Frames*, Issue 2, dated July 2003.

ATT-TP-76450, *Common Systems Standards*, Current Issue, dated 2004

ATT-TP-76450-001, *Common Systems Checklist*, Current Issue, dated 2004

ATT-TP-76450-002, *Common Systems Evaluation and Exception Report*, Current Issue, dated 2004

ATT-NOTICE-000-000-893, *Engineering Complaint on FMT/FL-2 Panels*, Issue 1, dated October 2004

ADCP-90-338, *FMT/FL2 Radius Retrofit Kit (FMT-AT&TKIT*), Issue 2, dated October, 2004

## 6. Contact List

Steve Weinert, Associate Director-Network Planning & Engineering (Transport & Common Systems), AT&T Services Inc. (817) 376-1822, E-Mail: sw0872@att.com

Mike Yeilding, Area Manager-Network Centralized Support (Drawings), AT&T Services Inc. (925) 823-4747, E-Mail: my1515@att.com

Ed Granger, Area Manager-Network Centralized Support (AT&T-East), AT&T Services Inc. (203) 553-8180, E-Mail: eg1724@att.com

Dave Smith, Area Manager-Network Centralized Support, AT&T Services Inc. (818) 713-7308, E-Mail: ds2375@att.com